

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/1/10 has been entered.

The instant application 10/576,975 is presented for examination by the examiner. Claims amendments filed 2/1/10 have been entered.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Garrity on 3/25/10.

The application has been amended as follows:

1. (Currently Amended) A method, comprising:

generating by a first apparatus which controls access to a low power radio communications network a shared secret at the first apparatus and storing the shared secret in a memory of the first apparatus, wherein the stored secret is associated with an operational mode of the first apparatus where a user of the first apparatus is not to be interrupted and where the stored secret is used for automatic pairing when the first apparatus is in the operational mode;

making the stored shared secret available at a second apparatus;

receiving a signal from the second apparatus to initiate a pairing process with the first apparatus on the low power radio communications network, where the signal comprises a request to pair with the first apparatus for a required service from the first apparatus;

determining whether the first apparatus is in the operational mode where the user of the first apparatus is not to be interrupted and whether the required service is associated with the stored shared secret; and

for the case where it is determined that the first apparatus is in the operational mode where the user of the first apparatus is not to be interrupted and the required service is associated with the stored shared secret, then initiating the automatic pairing, with no intervention from the user of the first apparatus, using the stored shared secret or else

prompting the user of the first apparatus to enter a shared secret associated with the requested

service and initiating the pairing using the user entered shared secret.

11. (Currently Amended) The method as claimed in claim 1, further comprising:
re-using the stored shared secret to join a third apparatus to the low power radio communications network without contemporaneous user input of the shared secret at the first apparatus, comprising: making the stored shared secret available at the third apparatus; and

creating in the first apparatus, using the shared secret, a secret key; and making the secret key available to the third apparatus for use in pairing the third apparatus and the first apparatus to secure communication between them.

12. (Currently Amended) A method, comprising:

~~storing, in a memory of~~ receive at a second apparatus of a low power radio communications network a shared secret, ~~wherein the stored shared secret is associated with an operational mode of the second apparatus where a user of the second apparatus is not to be interrupted and where the stored secret is used for automatic pairing when the second apparatus is in the operational mode;~~

sending a signal to a first apparatus to initiate a pairing process in the low power radio communications network with the first apparatus, where the signal comprises a request to pair with the first apparatus for a required service from the first apparatus;

~~determining where the signal to initiate the pairing process prompts the first apparatus to determine whether the second~~ first apparatus is in an operational mode where ~~the a~~ user of the ~~second~~ first apparatus is not to be interrupted and whether the required service is associated with ~~the stored a shared secret; stored on the first apparatus for use in automatic pairing when the first~~

apparatus is in the operational mode; and

for the case where it is determined that the ~~second~~ first apparatus is in the operational mode where the user of the ~~second~~ first apparatus is not to be interrupted and the required service is associated with the ~~stored~~ shared secret stored on the first apparatus, then ~~initiating receiving an acceptance message from the first apparatus and inputting, at the second apparatus, the shared secret received at the second apparatus for the automatic pairing, with where the pairing is initiated automatically on the first apparatus with~~ no intervention from the user of the ~~second~~ first apparatus, using the ~~stored~~ shared secret stored on the first apparatus, or else

~~prompting the signal to initiate the pairing process prompts~~ the user of the ~~second~~ first apparatus to enter a shared secret associated with the requested service ~~and initiating for the pairing using the user entered shared secret.~~

13. (Currently Amended) The method as claimed in claim 12, where the initiated pairing comprises an algorithm that uses one of the stored shared secret and the shared secret entered by the user of the first apparatus as an input to the algorithm.

14. (Currently Amended) An apparatus comprising:

at least one processor; and

at least one memory including computer readable instructions, where the at least one memory and the computer readable instructions are configured, with the at least one processor, to cause the apparatus to at least:

store a shared secret for use in securing communications in a low power radio communications network comprising the apparatus and one or more additional apparatus, wherein the stored shared secret is associated with an operational mode of the apparatus where a user of the

apparatus is not to be interrupted and where the stored secret is used for automatic pairing when the apparatus is in the operational mode;

communicate in the low power radio communications network and receive a signal from the one or more additional apparatus to initiate pairing with the apparatus on the low power radio communications network, where the signal comprises a request to pair with the apparatus for a required service from the apparatus;

determine whether the apparatus is in an operational mode where the user of the apparatus is not to be interrupted and whether the required service is associated with the stored shared secret; and

for the case where it is determined that the apparatus is in the operational mode where the user of the apparatus is not to be interrupted and the required service is associated with the stored shared secret, initiate the automatic pairing, with no intervention from the user of the apparatus, using the stored shared secret, or else

prompt the user of the apparatus to enter a secret associated with the requested service and initiate pairing using the user entered shared secret.

26. (Currently Amended) The apparatus as claimed in claim 14, wherein ~~the~~ the apparatus is caused to store an apparatus identifier for use with at least the stored shared secret to create the secret key.

27. (Currently Amended) The apparatus as claimed in claim 15, further comprising ~~the~~ the apparatus is caused to program the value of the stored shared secret.

28. (Currently Amended) The apparatus as claimed in claim 14, wherein the secret key is for use in securing all communications in the low power radio communications network.

30. (Currently Amended) The apparatus as claimed in claim 14, further comprising the apparatus is caused, when the apparatus participates in a different low power radio communications network controlled by a different apparatus, to enter a shared secret stored at the different apparatus and to create, using the entered shared secret, a secret key for securing communication.

34. (Currently Amended) An apparatus comprising:

at least one processor; and

at least one memory including computer readable instructions, where the at least one memory and the computer readable instructions are configured, with the at least one processor, to cause the apparatus to at least:

~~communication~~ communicate on a low power radio communications network;

~~store~~ receive at the apparatus a shared secret for use in securing communications in the low power radio communications network, ~~wherein the stored shared secret is associated with an operational mode of the apparatus where a user of the apparatus is not to be interrupted and where the stored shared secret is used for automatic pairing when the apparatus is in the operational mode;~~

send a signal to ~~another apparatus~~ a device to initiate a pairing process in the low power radio communications network with the ~~another apparatus on the communications network device,~~ where the signal comprises a request to pair with the ~~another apparatus device~~ device for a required service from the ~~another apparatus device~~;

where the signal to initiate the pairing prompts the device to determine whether the apparatus

device is in an operational mode where the a user of the apparatus device is not to be interrupted and whether the required service is associated with the a stored shared secret; on the device for use in automatic pairing when the device is in the operational mode; and

for the case where it is determined that the apparatus device is in the operational mode where the user of the apparatus device is not to be interrupted and the required service is associated with the stored shared secret stored on the device, initiate then receive an acceptance message from the device and input, at the apparatus, the shared secret received at the apparatus for the automatic pairing, with where the pairing is initiated automatically on the device with no intervention from the user of the apparatus device, using the stored shared secret stored on the device, or else

prompt the user of the apparatus device to enter a shared secret associated with the requested service and initiate for the initiated pairing with the another apparatus using the user entered shared secret.

35. (Currently Amended) A memory embodying a program of computer readable instructions that when executed by a processor perform actions directed to securing communication between a first and second apparatus, the actions comprising:

generating a shared secret at the first apparatus which controls access to a low power radio communications network and storing the shared secret in a memory of the first apparatus, wherein the stored shared secret is associated with an operational mode of the first apparatus where a user of the first apparatus is not to be interrupted and where the stored shared secret is used for automatic pairing when the first apparatus is in the operational mode;

making the stored shared secret available the second apparatus;

receiving a signal from the second apparatus to initiate a pairing process with the first apparatus on the low power radio communications network, where the signal comprises a request to pair

with the first apparatus for a required service from the first apparatus;

determining whether the first apparatus is in an operational mode where the user of the first apparatus is not to be interrupted and whether the required service is associated with the stored shared secret; and

for the case where it is determined that the first apparatus is in the operational mode where the user of the first apparatus is not to be interrupted and the required service is associated with the stored shared secret then initiating the automatic pairing, with no intervention from the user of the first apparatus, using the stored shared secret, or else

prompting the user of the first apparatus to enter a shared secret associated with the requested service and initiate pairing with the second apparatus using the user entered shared secret.

37. (Currently Amended) The apparatus as claimed in claim 34 where initiating the pairing comprises using an algorithm and where the algorithm uses one of the stored shared secret and the shared secret entered by the user of the device as an input to the algorithm.

Response to Amendment

The present claim amendments overcome the previous claim objections, 102 rejections, and 103 rejections.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:
the prior art is silent in teaching "receiving a signal from the second apparatus

to initiate a pairing process with the first apparatus on the low power radio communications network, where the signal comprises a request to pair with the first apparatus for a required service from the first apparatus; and determining whether the first apparatus is in the operational mode where the user of the first apparatus is not to be interrupted and whether the required service is associated with the stored shared secret" in combination with all of the other claim requirements. This limitation is required by all of the independent claims. The closest found prior art, Smeets, does not disclose a mode where the user of the first apparatus is not to be interrupted in the pairing process unless the stored secret key is not associated with the requested service.

Allowable Subject Matter

Claims 1-30 and 34-37 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. VAUGHAN whose telephone number is (571)270-7316. The examiner can normally be reached on Monday - Thursday, 7:30am

- 5:00pm, EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. R. V./
Examiner, Art Unit 2431

/William R. Korzuch/
Supervisory Patent Examiner, Art Unit 2431